

REPORT OF ACTIVITIES OF THE DEPARTMENT OF WATER RESOURCES

by

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WATER CONDITIONS

At the end of Water Year 2007 (October 1, 2006 through September 30, 2007) California statewide hydrologic conditions were as follows: precipitation, 65 percent of average to date; runoff, 50 percent of average to date; and reservoir storage, 80 percent of average for the date. On April 1, the statewide snow pack was about 40 percent of the April 1 average (the usual date of maximum accumulation). This is the smallest snowpack for April 1 since 1988 when the statewide snowpack was at 30 percent of the April 1 average. On May 1, 2007, the statewide snowpack was only about 25 percent of normal due to below-normal snowfall and above-normal temperatures during April. Usually, snowmelt continues well into June, but by June 1 of Water Year 2007, the statewide snowpack was essentially gone.

A series of troughs during October, the first month of Water Year 2008, kept temperatures throughout the State generally below normal, despite a period of strong, warm Santa Ana Winds in Southern California. Precipitation during October was generally above normal in Northern California, with most rainfall falling in a two-day period from October 18-19. This storm brought heavy rains over far Northwestern California and the first monitor stage of the new water year at Dr. Fine Bridge on the Smith River.

In general, seasonal precipitation during Water Year 2007 was significantly below average, especially in Southern California, where record dryness occurred at some locations. On September 30, the Northern Sierra 8-Station Index had a seasonal total of 37.3", which is about 75 percent of the average for an entire Water Year (50.0"). During Water Year 2007, the Northern Sierra 8-Station Index had the sixth driest January and March on record. In contrast, the other large precipitation months of December and February were above normal at 101 percent and 170 percent of average, respectively. The Water Year 2007 October through September seasonal total of 37.3" is the 24th driest year out of 88 years of record. In both Northern and Southern California, this year's severe fire season began early because of the dryness.

As of June 5, 2007, the date of the last forecast for Water Year 2007, the projected median April-July unimpaired snowmelt runoff for the State's major water supply basins ranged from 56 percent (Shasta Lake Inflow) to 22 percent (Tule River).

Selected Cities Precipitation Accumulation as of 11/01/2007 (National Weather Service Water Year: July through June)					
	Jul 1 to Date 2007 - 2008 (in inches)	% Avg	Jul 1 to Date 2006 - 2007 (in inches)	% Avg	% Avg Jul 1 to Jun 30 2007 - 2008
Eureka	6.55	181	0.71	20	17
Redding	4.28	152	0.26	9	12
Sacramento	1.12	85	0.16	12	6
San Francisco	2.13	166	0.33	26	11
Fresno	0.24	27	0.08	9	2
Bakersfield	0.41	79	0.29	56	6
Los Angeles	1.47	181	0.34	42	9
San Diego	0.42	57	0.81	109	3

Key Reservoir Storage (1,000 AF) as of 11/01/2007								
Reservoir	River	Storage	Avg Storage	% Average	Capacity	% Capacity	Flood Control Encroachment	Total Space Available
Trinity Lake	Trinity	1,429	1,615	88	2,448	58	---	1,019
Shasta Lake	Sacramento	1,801	2,756	65	4,552	40	-2,111	2,751
Lake Oroville	Feather	1,455	2,166	67	3,538	41	-1,708	2,083
New Bullards Bar Res	Yuba	587	534	110	966	61	-213	379
Folsom Lake	American	285	498	57	977	29	-447	692
New Melones Res	Stanislaus	1,427	1,303	110	2,420	59	-553	993
Don Pedro Res	Tuolumne	1,240	1,298	96	2,030	61	-450	790
Lake McClure	Merced	303	449	67	1,025	30	-377	722
Millerton Lake	San Joaquin	172	189	91	520	33	-264	348
Pine Flat Res	Kings	190	349	54	1,000	19	-684	810
Isabella	Kern	109	159	68	568	19	-65	459
San Luis Res	(Offstream)	808	1,101	73	2,039	40	---	1,231

The latest National Weather Service Climate Prediction Center (CPC) 90-Day long-range seasonal weather outlook (for November through January), issued October 18, suggests above average precipitation for Northern California (including most of the Pacific Northwest) and below average for Southern California. The central part of the State is expected to have average rainfall. Temperatures are expected to be above average for much of southeastern California and near average for the rest of the State. The latest CPC long-range weather outlook for November, issued October 31, suggests above average temperatures for all of California. Below average precipitation is expected for all California. Both the one- and three-month forecasts suggest that precipitation will be below average for the American Southwest.

The pattern of this year's long-range forecasts are influenced by the continuing development of weak to moderate La Nina conditions (cooler than average sea-surface temperatures) across the tropical Pacific. Current conditions suggest that La Nina conditions may continue to strengthen into early next year and then fade during the latter part of winter. La Nina events influence the position and strength of the jet stream over the Pacific Ocean, which in turn affects the winter precipitation and temperature patterns across the United States and other locations in the world. La Nina conditions can favor a wetter than average Pacific Northwest and a drier than average American Southwest. California sits in the transition zone with the northern mountains of the State potentially wetter than average, and the Central Valley and Southern California potentially drier than average. In addition, during La Nina years, weather in Northern California can be highly variable, with both wet and dry scenarios possible. Southern California has a more consistent tendency toward dryness.

TISDALE BYPASS CHANNEL REHABILITATION PROJECT

Sediment removal within Tisdale bypass is complete as of October 30, 2007. The contractor utilized sixteen 657E scrapers and four water trucks working six days per week for ten hour shifts averaging approximately 26,000 cubic yards (cy) of sediment removed daily. The estimated total sediment that was removed is 1,750,000 cy. All revetment has been placed. About half of the project area has been seeded and the

remainder will take place before November 9. The project will be completed on schedule thanks to DWR and their consultants' outstanding oversight of the day to day operations and the contractors dedication to the project.

LEEVE EVALUATIONS BRANCH

The newly formed levee evaluations branch was created to perform geotechnical levee evaluations on about 350 miles of urban levee. An urban levee is defined as protecting at least 10,000 people. The geotechnical levee evaluations will focus on the urban project levees in geographic areas of Reclamation District (RD) 17, Natomas, West Sacramento, Marysville, Woodland, Davis, Stockton, Maintenance Area 9, the American River, Sacramento, the Sutter Basin, and RD 784. This program will later expand to other areas within the Sacramento and San Joaquin Flood Control Projects with the Bond funding.

The purpose of these evaluations is to assist in developing a levee certification program based on geotechnical data, provide consistent formats for data (and associated data exchange), and provide an evaluation of the levee system based on geotechnical data. This evaluation will be conducted with the goal of providing 200 year level of protection in urban areas and the design profile level of protection in rural areas using the U.S. Army Corps of Engineers (Corps) underseepage criteria.

The following activities occurred during the past month:

1. Drilling is occurring in Sutter County, Stockton, Marysville and Natomas.
2. The Department of Water Resources (DWR) is currently working on all of the urban areas except Woodland and Davis. Initial data collection should start in November for these two remaining basins.
3. The Levee Evaluations Branch moved from the Joint Operations Center on October 5, 2007 and is now located at 2825 Watt Avenue, Suite 100. New phone numbers of staff were issued.
4. The electromagnetic survey of the urban levees is in the process of being reduced. Data for West Sacramento has been reduced and provided to local stakeholders.
5. A bathymetric survey of the urban areas of the Sacramento, San Joaquin, lower Calaveras, and lower American Rivers will begin in November or December, 2007.
6. A Request for Qualifications for two \$60 million contracts to perform mostly non-urban levee evaluations has been advertised. Interviews occurred in October and determination of the best qualified contractor(s) will be announced by November 7, 2007.

7. Due to confusion concerning report titles, the name of our initial reports has been changed from Preliminary Geotechnical Evaluation Report to Phase 1 Geotechnical Evaluation Report.
8. Based on review comments of the West Sacramento Phase 1 Geotechnical Evaluation Report, the report will be reissued in late November, 2007. Most of the comments concerned presentation of the data. These comments are being incorporated into the Marysville and RD 17 reports. These reports will be issued in December or January rather than November as originally planned.
9. The Levee Evaluations Branch is assisting the Floodplain Mapping Office with evaluating rates and scope of services for their four Central Valley mapping contracts.

FLOOD PROJECT INSPECTION SECTION

The annual fall inspections are 46 percent complete as of October 31, 2007. These inspections are normally scheduled from September 1 through November 30 but were not begun until September 20 this year. New inspection (and maintenance) criteria for trees and other vegetation on levees had to be developed to incorporate the standards that were agreed upon by the Roundtable Group (top level managers) that was created following the Sacramento Area Flood Control Agency/Reclamation Board/DWR Vegetation Symposium held on August 27 and 28. The target inspection completion date is now late December.

The Flood Project Integrity and Inspection Branch is writing a letter to be sent to all levee maintaining agencies explaining the vegetation criteria. A simple levee cross-section drawing will be included to graphically present the areas on the levees where the criteria apply.

Basic inspection and maintenance criteria are that trees are to be trimmed at least five feet above ground level and thinned. Brush and weeds are to be trimmed, thinned, or removed to allow visibility and access. These criteria apply to the entire landside levee slope and 10 foot easement beyond the landside toe as well as to the top 20 feet (slope length) of the waterside levee slope. On shorter levees, a five foot wide riparian vegetation band can be left at the waterside toe.

These criteria will apply during the short term of unknown duration. Long term criteria will be established following submittal and resolution of a system-wide application for a variance to the Corps' White Paper prohibiting nearly all vegetation on levees. Extensive research and collaboration will be required to resolve the vegetation issue.

STATUS OF EROSION REPAIRS

2005 Ayres Critical Erosion Sites

All work for the 2005 Critical Erosion Sites related to on-site environmental mitigation including soil-rock mix and agricultural soil cover, plantings, in-stream woody materials (IWM), fascine bundles, pole cuttings, seeding, and erosion control fabrics, has been completed on 15 DWR-led sites. The four setbacks sites, Cache Creek Levee Miles (LM) 0.8, 1.1 and 2.4 and Sacramento River Mile (RM) 145.9, were done in 2006. The Corps is in the process of finishing repairs for 14 Corps-led sites with minor planting to be completed in November.

2006 Ayres Critical Erosion Sites

Property appraisals for the two Cache Creek setback sites have been completed. DWR has started negotiations with the land owners and initiation of repair work depends upon success of the negotiations. Phase II soil and planting work for the 22 DWR and Corps Critical Erosion Sites (2006) is currently under construction and scheduled for completion by November 30, 2007.

2006 Public Law (PL) 84-99 Rehabilitation Assistance Program

DWR has completed repairs for the last remaining Order 1 site located at Butte Creek LM 0.8. The Corps has also added six Order 2 sites on the Sacramento River in RD 150 to their PL84-99 repair list and repairs will be done in 2008.

Initially, the Corps had selected 62 of the 133 Order 3, 4 and 5 sites for repairs. However, due to environmental restrictions related to endangered species and limited construction windows, only 7 of these sites will be constructed this year before the flood season. For the remaining sites, flood fighting contingencies will be established and implemented as necessary. The Corps is lead agency for PL84-99 repairs and DWR is providing environmental permitting, rights-of-way and borrow materials for these sites.

Special Levee Repair Projects

Hamilton City Levee Interim Repairs: All required State and federal permits have been received. DWR has determined that J-Levee interim repair qualifies for 50-50 percent cost sharing grant. DWR and Glen County are in the process of signing an agreement for construction and maintenance of the non-project levee.

Fremont Weir Gage Sacramento River Mile (RM) 83.9R: A new gage at the Fremont weir site has been installed. The old gage will remain on site for use in new gage calibration. Bank erosion site close to the existing Fremont Gage will be repaired after spring, 2008.

Feasibility Study for 3B's Overflow Structure: DWR has prepared a proposal to conduct a feasibility study to repair/modify the Butte Basin 3B's Overflow structure. This proposal explains the process needed to determine and evaluate alternatives for re-establishing the overflow structure to meet the current overflow needs, and addresses available cost sharing options with the local agencies.

SUTTER BYPASS TREE PLANTINGS – CENTRAL GUN CLUB PROPERTY

Bob Duffey (Division of Flood Management's Flood Project Integrity and Inspection Branch) Thomas Ellis, Loretta Dean and Lady Bug Doherty inspected the subject site on October 23, 2007 to verify the existence of tree plantings within the Sutter Bypass. This was done at the request of Lady Bug Doherty. The group visited the portion of the property where approximately 15 new willow trees were planted and black plastic protective enclosures installed (Photo 1). At this time, it has not been determined whether a Reclamation Board permit was obtained for these tree plantings. The Reclamation Board permit database will be researched to determine if this is an authorized project or an unauthorized encroachment of the Sutter Bypass floodway.

If the permit research concludes that this is an unauthorized encroachment of the Sutter Bypass floodway, DFM staff will recommend the following course of action by the Reclamation Board:

1. The current landowner of record will be contacted with a formal request to remove the unauthorized plantings at their own expense.
2. In the event that the landowner fails to remove the encroachment, this matter will be forwarded to the Reclamation Board to initiate enforcement proceedings. This typically requires that a Reclamation Board order be obtained instructing Sutter Yard personnel to remove the unauthorized encroachment.



The Sutter Bypass contains many areas of dense groves of mature native trees (as shown below). The DFM Maintenance Support Branch is currently conducting hydraulic evaluations of the entire Sutter Bypass to determine vegetation removal requirements to ensure conveyance capacity.

